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Bronte Creek Provincial Park Master Plan

Ministry of Natural Resources

Division of Parks


Minister Hon. Leo Bernier

Deputy Minister Walter Q. Macnee

*Office Bronte Creek Provincial
Park Advisory Committee*



Committee



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Government
Publications

August, 1972

The Honourable Leo Bernier
Minister
Ministry of Natural Resources
Province of Ontario
Parliament Buildings
TORONTO, Ontario

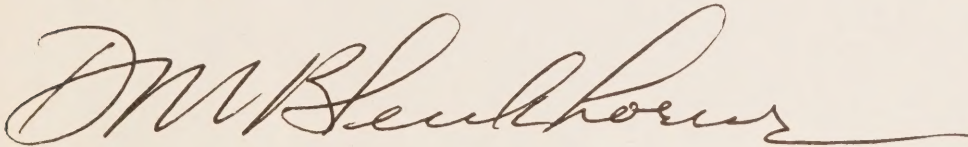
Dear Mr. Minister:

The Bronte Creek Provincial Park Advisory Committee recently held its eleventh full committee meeting for the prime purpose of reviewing the preliminary master plan for the development and management of the park.

Committee members unanimously voted to approve the master plan and report as prepared and presented by the consulting firm of Project Planning Associates Limited. In conjunction with the approval the Committee emphasized the following: the original target date, early summer 1973, for the opening of the park should most definitely be upheld; sufficient funds should be made available to proceed with the implementation of the first stage of development as soon as possible; a link to the GO transit station should be provided at an early date; and park development should proceed according to public demand.

We respectfully submit this document for your review and consideration.

Yours sincerely,

A handwritten signature in dark ink, appearing to read "DM Blenkhorne", with a long horizontal flourish extending to the right.

Donald M. Blenkhorne
Chairman
Bronte Creek Provincial Park
Advisory Committee



View into Bronte Valley from the scenic walk

ERRATA SHEET

p. 11

Map 6

Environmental Management Considerations

Legend Corrections:

1. Areas of highest natural value
No development
 2. Areas of natural value
No development, except trails
 3. Areas of high natural value
No development, except carefully designed
nature trails
 4. Areas of limited natural value
No development of buildings or pavement
or anything that would significantly
alter drainage or groundwater percolations
- A B C D Areas of little or no natural value
Well suited for any form of development
Rated as A to D for environmental suitability

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Mr. T. Lee
Director of Planning
Parks Branch
Ministry of Natural Resources
Province of Ontario

July, 1972

Dear Mr. Lee:

The Bronte Creek Provincial Park constitutes a unique opportunity to create a recreational and conservation area for the people of the urban region of Southern Ontario. In contrast with most Provincial Parks, which are more or less remote from large population concentrations, Bronte Creek Park lies within easy reach of millions of users, even by means of public transportation. It will increasingly become a natural oasis, surrounded by urbanization — a place where we can experience the environment and our cultural heritage, where we can relax and "recharge our batteries".

Project Planning Associates Limited considers it a great privilege to be a part of this program. It is a rare chance to work together with the Provincial Government and many other groups and individuals to plan, and now to implement a concept which will be of incalculable benefit to so many, for generations to come.

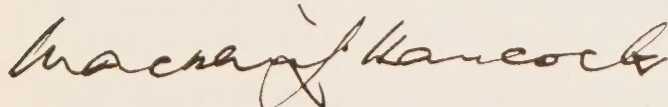
This report describes the concept of Bronte Creek Provincial Park, as well as the details of the plan. It stresses the importance of creating a balance between nature and man-made things in such a way that they will complement and reinforce, rather than be in conflict with each other. The achievement of this goal will ensure a park in which the usefulness of the natural resource will increase in interpretive value. We have outlined the results of extensive studies to determine both the development capabilities of the land and the needs of the Park's users. These investigations, together with the Province's and our own philosophies, became the basis for the Park's design and the recommended activity and management programs.

Bronte Creek Park is not simply a natural recreation area. It will show us a great deal of the ecology of our environment — its flora and fauna, its water and soils, and how each affects the others. It will also tell us much about Ontario's early settlers and the way they lived on, used and respected their environment. The Development Plan and Program are designed to give the Park's users ample opportunities to see and learn about these things.

We sincerely hope that this report will serve to stimulate the widest possible interest in the development of Bronte Creek Provincial Park. Its implementation will take many years and during this period many people will be able to make further contributions to its success, both formally and informally. From now on, the building of the Park should be seen as a continuing process, with inputs from the users, as well as the Park's management. The more people understand its concepts and proposals, the more effective this process will be to create a living Park for everyone.

We wish to take this opportunity to thank the Ministry of Natural Resources and all those people mentioned on the head page for their confidence in our firm and for their invaluable assistance.

Very sincerely yours,



Macklin L. Hancock, President

ACKNOWLEDGEMENTS

The authors gratefully acknowledge the extremely valuable contributions made by the following people. Without their technical assistance, encouragement and critique, the Development Plan for Bronte Creek Provincial Park and this report could not have been so successfully completed in such a short time.

The Bronte Creek Provincial Park Advisory Committee,

Mr. Donald M. Blenkhorne (Chairman)
Mr. George W. Harrington (Vice-Chairman)
Mr. George S. Atkins
Mr. Laurie Branch
Mr. Ed R. Cumming
Mr. Doug Davidson
Mr. Richard E. Goodin
Mr. Brock Harris
Mr. Pat J. Hughes
Mr. Pat J. Kelly
Mr. Robert Laing
Mr. Richard Moskal
Mr. John D. Orr
Mr. Doug H. Rigg
Mr. William Warwick

Ministry of Natural Resources

Mr. T. Lee,
Director of Planning Parks Branch

Mr. Ismet Olcay,
Senior Landscape Architect

Mr. Norm Richards,
*Park Planner and Secretary
to the Advisory Committee*

Mr. Bruce Duffin,
Park Superintendent

Mrs. Ellen Langlands,
Park Historian

Mr. Paul Eagles,
Park Naturalist

Project Planning Associates Limited in Association with

Don Hancock Landscape Architecture

Team Members

Mr. Walter H. Kehm
Principal in Charge, Chief Landscape Architect

Mr. Don Hancock
Resident Landscape Architect

Mr. Torrance Mahabir
Project Coordinator

Mr. Robert Calvert
Architect Historical Consultation

Mr. Daniel Li
Architect

Mr. Roland Alexander
Architectural Technologist

Mr. Werner Billing
Traffic Engineer

Mr. Alex Hayworth
Chief Engineer

Mr. Kaupo Holland
Engineering Design

Mr. George Yost
Recreation Planner

Mr. Vern Olsen
Landscape Architect

Mr. Bruce Cudmore
Landscape Architect

Mr. Carsten Lueth
Model Builder

Mr. Tony Jimenez
Graphic Design

+Specialist Consultants

Interthink Limited,
The Royal Botanical Gardens, Hamilton
Dr. Peter Swann
Professor Roy Wolfe, York University

Introduction

Background

Proposals for development of the Bronte Creek Park were considered in 1959 and it was not until April of 1971 that the Honourable James Snow MPP, Halton East, submitted a new proposal to the Ontario Government. With support from the Halton Conservation Authority and the local parks and recreation commissions the proposal for a Provincial Park was accepted by the government and the Bronte Park Advisory Committee was formed. Under the able leadership of Mr. Donald Blenkhorne, Chairman of the Committee, policies were developed and the spirit of the park was articulated in their comprehensive report.

Following the presentation of the Policy Recommendations Report to the Honourable Leo Bernier, Minister of Natural Resources in March 1972, this firm was commissioned to prepare a conceptual development plan for the park. The plan presented here is based on the guidelines established by the Committee.

Purpose of Study:

Within the context of the Committee's Report, the purpose of our study was to:

- 1) Define user groups and loading factors
- 2) Preserve the passive, naturalistic character of the site while meeting the recreational needs of large, urban populations.
- 3) Prepare the basic architectural philosophy and spirit which should prevail throughout the park.
- 4) Minimize vehicular access into the park.
- 5) Evaluate existing structures on the site.
- 6) Prepare a development plan showing the allocation and size of use areas.
- 7) Prepare a staging plan and cost estimate.
- 8) Consider the impact of the park on the region and propose additional land acquisitions.

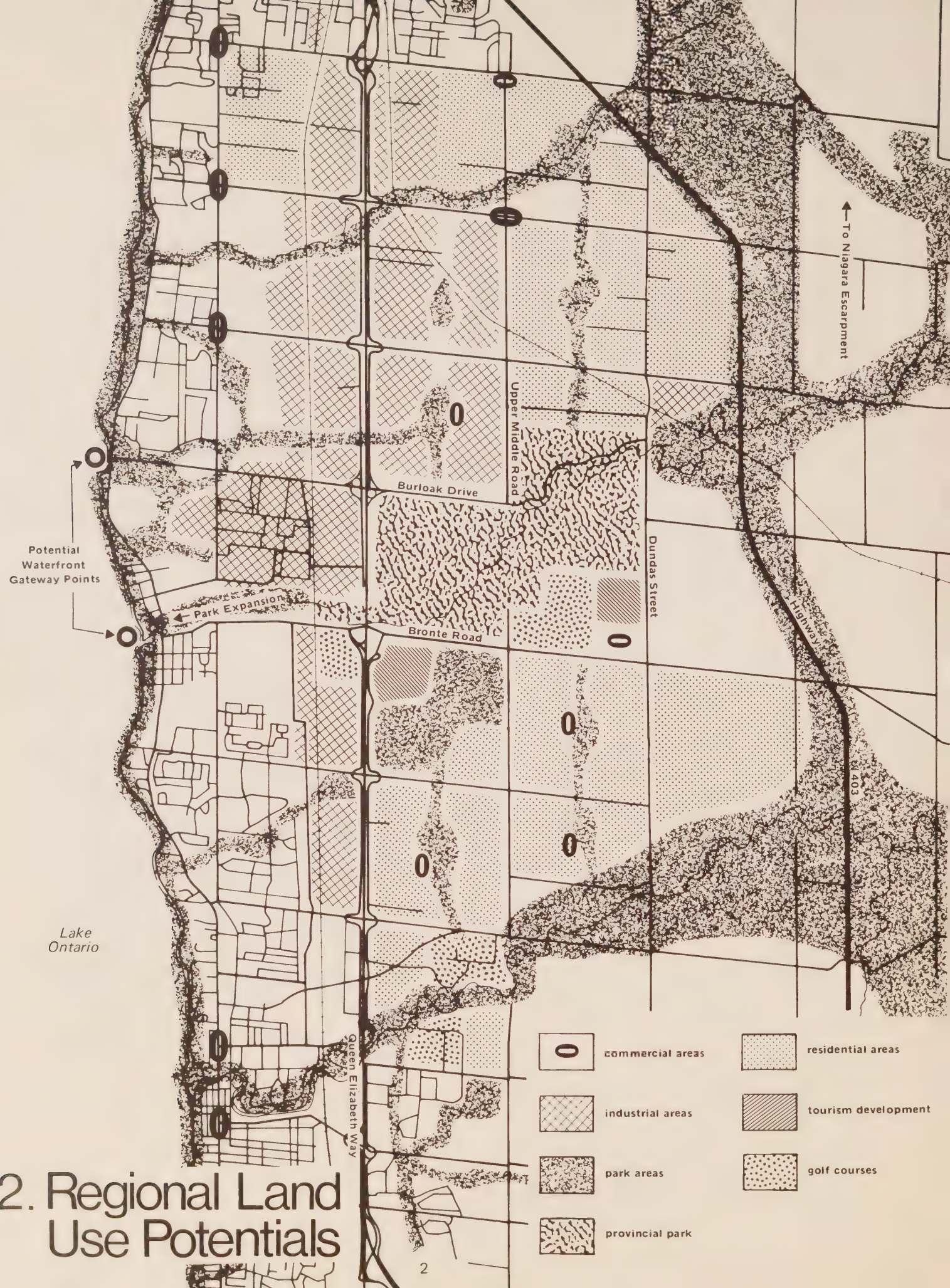
Summary of Recommendations:

- Continuous, internal transportation systems should be developed in the form of mini-bus and trailer

trains designed for the comfort and needs of all people.

- Automobiles should be kept to the periphery of the park with parking lots linked to the internal transit system.
- The ravine should be crossed at a central point with a pedestrian scale terrace — boardwalk bridge.
- The historic farm buildings should be restored to serve as the basis for theme areas.
- Access to the ravine should be controlled by limiting the number of entry points and the extent of developed trails.
- Admission to sensitive natural areas should be on a guided basis.
- The Burloak interchange should be constructed, with elimination of the existing service road overpass.
- Alternative traffic routes should be studied to avoid bi-secting the park by the proposed Upper Middle Road.
- Hydro transmission lines and power poles should be relocated, or the facilities should be installed underground.
- The park should be extended northward to the Niagara Escarpment, eastward to the proposed Conservation Authority reservoir, and southward to the mouth of Bronte Harbour.
- The environmental land zoning control system, proposed by the Committee should be adhered to.
- Park facilities should be constructed in three stages, encompassing a five year time span.
- Staff build-up and training programs should be initiated.
- Monitoring programs to determine user attitudes and demands, should be developed.
- Comprehensive recreation programs should be prepared.

2. Regional Land Use Potentials



Regional Situation

Users

The Park was originally conceived as a Provincial recreational resource, to serve the needs of urban populations in southern Ontario. Organized and systematic planning of this resource for recreational purposes began in 1958 (1).

The Bronte Creek Provincial Park Advisory Committee evaluated current regional conditions and needs, and used their conclusions as the basis for policy recommendations in their report of March 1972. Our own investigations into the views of the local population firmly established the desirability of a people-oriented recreational centre of the scale and scope recommended in the Advisory Committee's report.

The potential market for the attractions of Bronte Creek Park is vast. Over three million persons live within one hour's drive of the site; over 4.5 million people within two hours.

We have carefully reviewed the program and activity recommendations for the Park, submitted by individual residents and organizations. Six intensive-interaction group workshop sessions, comprising a representative cross-section of Hamilton-Toronto region residents, were undertaken to verify the implications of the submissions. These workshop sessions sought to determine the operational strategies to fit the broad need/want requirements to the constraints of site and budgets. We asked three groups of handicapped and three groups of able-bodied adults, between the ages of 18 and 34, first to describe how they now use leisure time in outdoor recreational pursuits and then to conceptualize their recreational needs and wants, as well as those of their friends and family, in the Bronte Creek environment. We conclude that the future park users will expect to find the following:—

- A wide variety of activities within one site, that can stimulate individual and family participation;
- a program of park interpretation and environment that affords a "threshold" introduction to provincial park participation, particularly oriented to park ecology and to wilderness-park experiences in our northerly parks;

- interesting supervised centres for small children, including day-care centres, that would free parents from this responsibility and permit them to undertake activities in the Park geared to adult interests;
- an internal transportation system that cheaply and efficiently eliminates the need for any movement of private vehicles beyond the entrance parking lot;
- a year-round program of activities that can sustain repeated participation for all interests and all age groups; and
- A "European park" feeling that harmoniously balances activities, attractions, facilities, horticulture and natural environment.

Many of the people interviewed indicated that a visit to the Park might include overnight stays in a camping area or in private accommodations just outside the Park. This is an important point because all members of our probe groups live within minutes of the Park.

Environment

The Park lies on the Burlington/Oakville municipal boundary. As indicated in Figure 2, lands south of the Park are committed to urban uses, whereas lands to the west, north and east are now rural. Much of this open land will be urbanized before the close of this century.

Burlington's official plan anticipates that industry will develop along part of the western park boundary. Present zoning permits "showcase type" manufacturing complexes to locate along the Queen Elizabeth Way and northward for a depth of about one mile. Less restrictive industrial zoning is anticipated further northward to Upper Middle Road. The remaining land in Burlington adjacent to the Park is zoned in a "holding" classification. Oakville also classes its rural lands abutting the Park in an agricultural holding category. The golf course is zoned as open space.

While demand will shape zoning change, it is hoped that private recreation/tourist accommodation facilities can be developed west of Palermo along Highway 5. Private campgrounds to augment the Park facilities, motels and the preservation of the remaining historic buildings in Palermo will complement the Park plan. With the golf facilities to the

(1) Oakville-Trafalgar-Bronte Joint Planning Board — Bronte Creek Park Report, September, 1959.

south an attractive recreation development should be possible.

This type of land use is also proposed for the area to the north east of the Bronte Road interchange on the QEW. The Halton Conservation Authority has proposed to create a substantial lake as part of its flood control program which becomes an important asset to be linked to the Park. It will further enhance the desirability of the site for private recreational development, which could become heavily tourist oriented. This type of proposal is consistent with the thoughts of the user groups, who expressed interest in being able to stay overnight in quality facilities to fully enjoy a weekend at the Park.

Figure 2 shows the Park and the generalized character of potential development at some point in the future. Residential, commercial and industrial uses and green space will create a proposed urban system, based on the terrain and existing transportation corridors. Green space has been used by the municipalities to tie together the future urban structure. The lakeshore stream valleys, the Niagara Escarpment, and at the proposed Toronto Centred Region utility corridor along the route of Highway 403 provide an open space grid that potentially could be developed for recreational uses of both high and low intensity.

Accessibility

The Park site can be reached by way of all popular modes of land transportation from four directions. The private automobile is the dominant type. The southeast corner of the Park is less than a five minute walk from an existing railroad station, now used for rush hour GO trains, four times each weekday. Municipal bus lines now serve nearby areas. Oakville is developing an intra-municipal bicycle pathway system that could be extended to the Park.

The Queen Elizabeth Way on the south boundary of the Park is the main intercity link providing easy access to the site. This highway is slated for reconstruction to accommodate higher traffic volumes. Eventually the Q.E.W., by the Park, will be widened to eight lanes plus service roads where required.

Bronte Road or Highway No. 25, the boundary road on the east side of the Park, will be improved northward from the Q.E.W. Work is expected to start in the Fall. In the first phase a right-of-way sufficient for four lanes will be prepared, and two lanes will be

surfaced. The present Bronte Road/Q.E.W. interchange will be reconstructed, probably without changing its geometric design. A possible eastward re-alignment of this facility would take the interchange off the rim of the ravine and provide a table land buffer strip that would reduce further encroachment into the valley. However, this re-alignment is not contemplated for the foreseeable future. Dundas Street, Highway No. 5, is the north Park boundary road. Eventually this route will be widened and made into a four-lane, divided arterial.

Burloak Drive, the western boundary road, is now a two-lane rural road, macadamized in part, but ending as a gravelled track. Plans call for eventual improvement of this route, beginning with an interchange at the Q.E.W., possible widening to four lanes and re-alignment at Dundas Street. The Town of Burlington in its long range planning has designated this road as an industrial collector between the Q.E.W. and Upper Middle Road.

Upper Middle Road serves local traffic. It is unopened between Burloak Drive and Bronte Road. This route has been designated as a future major arterial in its present alignment — from the Queen Elizabeth Way, at the Ford plant in Oakville to the proposed Highway No. 403 in Burlington, a few miles west of the Park. Although the projected need for this improvement is considered to be some thirty years away, the implications of this proposal are very detrimental to both park development and activity programming. Fortunately sufficient time is available for user groups and engineers to review alternatives before a demonstrable need for this facility develops.

GO Train Facilities

The Bronte Railway station is not part of the regular GO train system running between Oakville and Pickering. It is mainly a commuter stop on the Oakville-Hamilton extension of the GO system, providing only rush hour service on weekdays, with no weekend or holiday service. The Ministry of Transportation and Communications has stated that expensive signal systems and other railway facilities between Oakville and Hamilton would be needed to provide normal GO service to Bronte.

The M.T.C. has investigated the feasibility of a shuttle bus service to the Park from either the Oakville GO station or the Islington Subway station, for the initial stages of development. In late 1972, a GO bus from

Oakville GO station will make stops at the intersection of Highway 25 and the QEW, a few hundred feet from the park boundary.

A further proposition to be investigated is to provide GO service to Bronte on a more frequent schedule on Saturdays, Sundays and Holidays — the peak days for park users.

Recreational Linkages

Bronte Creek Park must fit into a regional setting of extensive recreational development and tradition. Southern Ontario has provided recognized leadership in public development of recreational resources, a fact illustrated in our group workshops in which people frequently used the name of an existing southern Ontario facility to explain their concepts of attractions that should be planned for Bronte Creek Park.

The variety and the capacity of developed outdoor recreational opportunities, easily accessible to populations in the region, are quite restricted. Many facilities already operate at over-capacity during peak periods and Bronte Creek should take some of the pressure off these over-used attractions. But the scale of the Park and the possibilities of programming its natural advantages to provide a new form of recreational expression, must be considered as the prime criteria.

The Park should have a strong relation with recreational developments on the Niagara Escarpment and it ought to be possible for people to move from one system into the other. It would be most desirable if interpretive programs, exhibits and other features were mutually supportive.

The Lake Ontario shoreline and the almost limitless recreational capabilities of the surface of the lake should be linked to the Park. Bronte Harbour can become both a park gateway and a park activity resource. As a gateway it can provide dock facilities for excursion boats arriving from Toronto, Rochester, Buffalo or Hamilton. Another possibility is to create a water arrival point at the foot of Burloak Drive which could be a catalyst for the development of park spaces linking to it. In either case, a Bronte Park mini-bus can provide a convenient service to bring park users to the waterfront or to meet arriving excursion boats bringing people to the Park.

Bronte Harbour is heavily used now and it would be desirable to develop new marina facilities further upstream which would provide park users with the possibility of renting boats or to take advantage of lake front excursions which would depart from it. Tour boats similar to those used in Toronto Harbour would provide a pleasant means of viewing the harbour and lakeshore.

Park Site

The Park site was a favoured place for human activity, even in pre-historic times. Euro-Canadian settlement, from the earliest period to the present, shows the successful integration of man's purposes with nature. History, and a combination of fragile ecology and high recreational capability characterize the 2,000 acres of land designated for park development.

Terrain

The site, at the height of land, is about 500 ft. above sea level or about 250 feet above the elevation of Lake Ontario. The flat to gently rolling physiography of the uplands is characteristic of a till plain. The Creek valley shows the effects of glacial meltwater erosion that cut through till and shale deposits, forming alternatively precipitous banks and stepped terraces. At the south end of the Park, the Q.E.W. is aligned on the old shore bluffs of Lake Iroquois. Dundas Street at the north, marks the beginning of till moraine formation. Further to the north and clearly seen from the site is the limestone face of the Niagara Escarpment.

Ecology

The uplands have been essentially cleared of the original Carolinian forest cover and cultivated for a variety of agricultural products. Native forest species, such as White Pine, Sugar Maple, Beech, Red and Muhlenberg Oaks, can still be found in woodlots and along the ravine edge.

The steep slopes of the valley wall retain much of the early forest quality and demonstrate the subtle effects of micro-climate and soil conditions. Hemlock and Arbour Vitae thrive on the north and east facing slopes, indicative of cool and moist conditions. Oak, Beech, Ash and other deciduous plants predominate on the dryer south and west facing slopes.

The protected valley bottom lands provide an environment for native Sycamore, a tree now uncommon in the region. Wetter bottom lands are heavily forested with Willow and Poplar.

Within the wooded areas of the site is a wealth of wild flowers and other herbaceous plants. Trillium of several varieties and mutations are abundant on the valley terraces. Bloodroot, Hepatica, Adder's Tongue

and Spring Beauty are some of the springtime woodland species that are growing here in profusion.

The site is the natural habitat of a variety of upland birds and small game. Occasionally deer have been seen on the site. With the encroachment of urbanization, however, it becomes increasingly necessary to reserve parts of the Park for native animal habitation.

The ecological analysis carried out by the staff of the Ministry of Natural Resources was most useful to us in appraising these changes. (2) The integrated findings from our survey and the work of others, are summarized in Figure 3, Existing Site Conditions. This diagram was the basis for the activity zones and interpretive pathways indicated on the Development Plan, Figure 1.

Site Problems

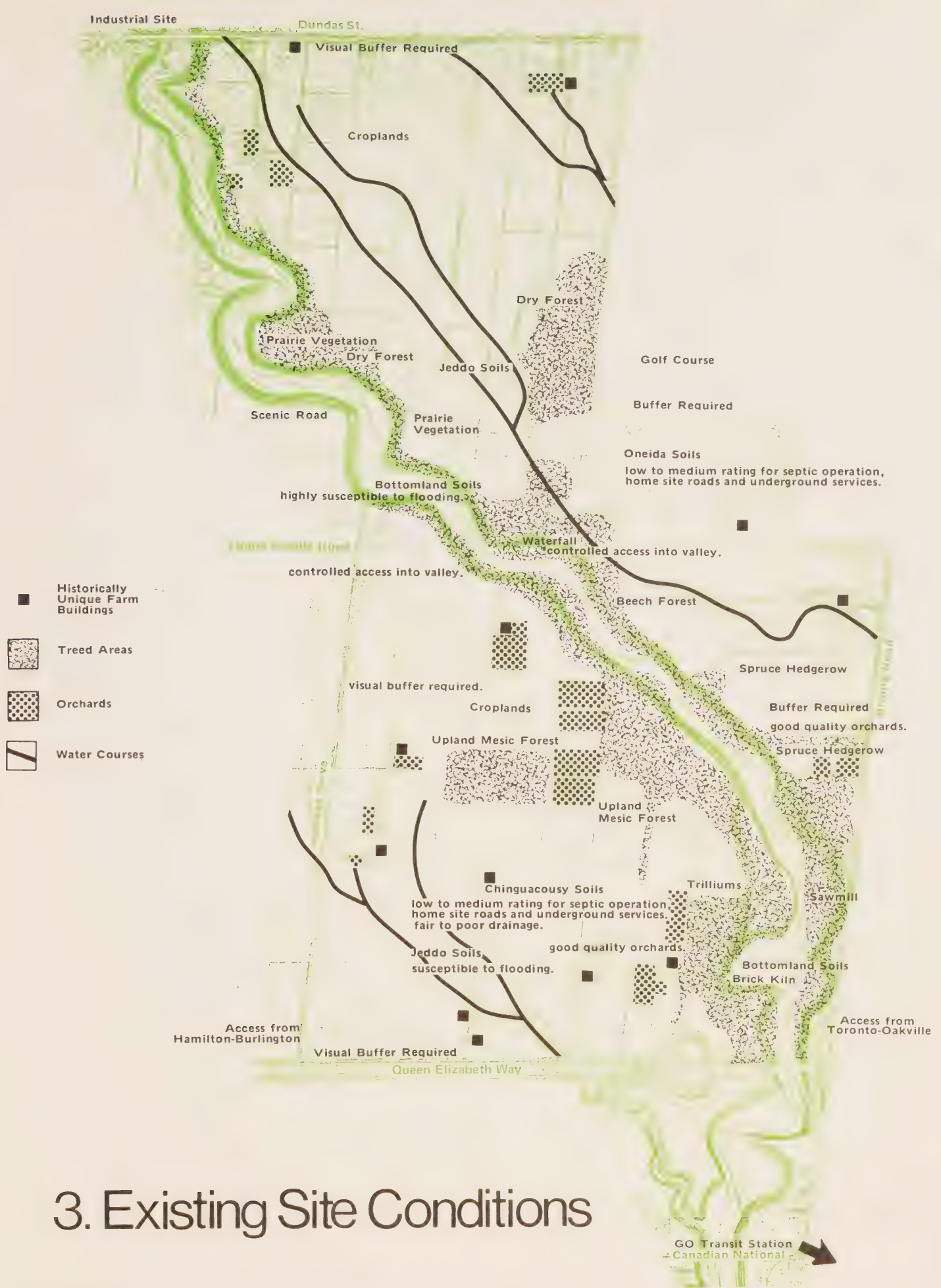
Figure 4 shows the development limitations that most people feel would infringe on their enjoyment of the Park — the noise of traffic (illustrated in gradations of perceived noise levels); the overhead electric transmission lines; and the narrowness of land between Burloak Drive and the ravine edge.

The traffic noises generated by the QEW, Highway 25 and Highway 5 are substantial and effectively sterilize major portions of the site. Most notable are the noises from the QEW and Highway 5 bridges. The muffling of these sounds is especially important since they penetrate into the valley and completely disrupt the passive mood otherwise projected by the landscape. Studies should be undertaken to investigate noise reduction solutions.

Substantial noise buffers at the boundaries of the Park in the form of earth mounds and dense plantings are proposed. Noisy peripheral areas have been planned to accommodate access roads and parking lots.

The overhead transmission lines are objectionable, especially the towers and lines running down the Upper Middle Road easement. This particular line bisects the major core development of the park and because of the nature of the landscape is totally visible. Either underground burial or studies assessing realignment potentials should be initiated.

(2) Ontario Department of Lands and Forests. "A Preliminary Ecological Survey of Bronte Creek Park Reserve" November, 1971.



3. Existing Site Conditions



4. Environmental Site Conditions



5. Cultural Heritage

Cultural Heritage

Figure 5 summarizes the known involvement of man on the site. While archaeological investigation of the site is incomplete, current findings suggest interpretive potential of pre-historic settlements on various parts of the site. An on-going excavation program is encouraged, possibly employing students for the summer. If sites of particular interest are uncovered they will require protection from the elements. Some form of building can be envisioned in this event. We can expect numerous artifacts to be uncovered on the site which should be displayed in the Museum/Interpretive Centre. The Museum should contain only locally found specimens as opposed to becoming a Southern Ontario repository.

The Ministry of Natural Resources has prepared the basic inventory of site buildings and farmsteads. (3) We appraised structural conditions and, together with the Park Historian, prepared an evaluation of the interpretive merits of buildings and sites. The following conclusions pertaining to the use of existing sites and buildings were reached jointly:

- structurally sound or readily repairable buildings built before 1900 should be considered suitable within the Park development program, provided that a useful Park purpose can be assigned;
- all existing buildings to be retained should remain on their original sites;
- no structures should be moved into the Park for the purposes of developing a “village”;
- the exterior of the structures should be restored to their original appearance;
- site treatment and landscaping of structures to be retained should be in character with the period in which the structure was built; and
- interior furnishings, exterior accessories, implements and machinery used prior to 1900 should be shown in association with the main structures to be retained, when such exhibition supports the Park program; ideally, objects used on the farm should be obtained and displayed with the farmstead.

(3) Ontario Ministry of Natural Resources, “Preliminary Historical Survey – Bronte Creek Provincial Park,” April, 1972

Recreational Capability

The three land forms found on the site imply three basic user capabilities. The uplands have moderate to high recreational capability. The valley slopes and the bottom lands have low capabilities for recreation other than carefully planned nature interpretive programs. Detailed appraisals of the capabilities of each land form undertaken by the Advisory Committee’s technical project team led to recommended user activity areas.

Figure 7 illustrates the recommended pattern of visitor activities throughout the Park. This diagram is an integration of information provided by the Advisory Committee and our own analyses and indicates the following zones as outlined by the Provincial Parks Zoning System.

Natural zones	570 acres
Historic zones	30 acres
Recreation zones	
(centres, swimming pools etc)	
— intensive	100 acres
(playgrounds, picnic areas, etc)	
— low-intensity	925 acres
— camp grounds	255 acres
(transportation, administration)	
— park services	40 acres
Total	1,920 acres

Development Constraints

Limitations imposed by the fragility of the environment reduce the numbers of persons and types of activities that can enjoy some of the Park areas. Our survey of potential users indicated that people will probably view limitations made to preserve the ecology as realistic and worthwhile constraints. These limitations may even positively stimulate participants to develop more understanding of the Park environment if interpretive programs on the site are well programmed and managed.

The Character of the Park

The Park is intended to be used by large numbers of people from all walks of life. While the facilities of the Park should appear to be loosely structured, in keeping with the natural environment, they should in fact be carefully but unobtrusively organized. The atmosphere should be relaxed and conducive to the



7. Park Zones

enjoyment of leisure — with elements of fun and touches of humour. At the same time, however, the Park must have dignity where this is appropriate — in the heritage and the wilderness areas. The total “man in nature” concept demands respect for, as well as enjoyment of nature; Bronte Creek Park can make a contribution to expanding the idea of Ontario as a place for “man to stand and grow” to a place for “trees to stand and flowers to grow”.

The Park could become an important cultural influence by demonstrating a Canadian “life-style”, without gimmicks or a surrender to the cheapness which sometimes characterises commercial tourist attractions. Nothing must ever look cheap or shoddy and maintenance standards must be consistently high.

The success of the Park will largely depend on the ability to fit the man-made facilities most effectively into the nature-made attractions. The elements of these two types of attractions are: —

The “Nature-made” attractions

- landscape
- changing seasons
- walks
- flowers
- birds
- farms
- vineyards
- orchards
- valley

The “Man-made” attractions

- interpretive centre
- horseback riding
- winter sports
- summer sports
- festivals (music and others)
- open air theatres
- day-care nurseries
- restaurant
- crafts centre
- lectures and guided tours
- club activities
- young farmers groups
- scientific groups
- maple-gatherings
- harvest festivities
- participation by community groups (5)
- waterfall

(5) Efforts should be made to encourage industries to participate by, for example, providing the lumber for children to build a log cabin. Sports equipment firms would naturally be interested in sponsoring competitions but also many other firms are increasingly seeking such PR outlets for their charitable contributions. Sociologically, it would be equally important to engage the interest of trade unions which are beginning to enter such public service fields. Perhaps through their children they might be encouraged to contribute skills, direction and labour.

Development Concepts

Our work concentrated on developing insights about what people expect to find in the Park, in relation to what activities could effectively be offered on the site. Our study of need and capability, together with the Advisory Committee's policy statements and studies of interpretive potentials, provided the basis for a series of concepts for site development. These concepts were reviewed with the Committee in a work session. The final concept, Figure 8, was finally recommended for detailing and refinement.

The following assumptions pertain to the concept plan:—

User Needs

- the orientation of the Park should be toward *regional* recreation programs;
- programs and facilities should recognize the needs and interests of all age groups;
- programs should recognize the desires of families to participate in activities, either as a group or as individuals,
- the development of structures, facilities and circulation networks should *unobtrusively* take account of the needs of the handicapped; it is neither the intention nor the desire to develop solutions that highlight the problems of the handicapped;
- the Park should facilitate visitor orientation through a simple but strongly defined system of pathways and landmarks; and
- the Park should be a place for relaxation, with well defined areas for exuberant activities, free expression and places suited for retreating into solitude.

Group workshop interviewees readily saw the Park as a facility that could be developed in response to their needs. Those surveyed expressed a strong preference for a facility that sponsored a dynamic activity program to attract participants back on a regular basis throughout the year. For example:—

- interpretive programs should be organized into series; study programs pertaining to nature, heritage, agriculture and domestic sciences should reflect the changes of the season;

- craft programs should promote exhibits of the work produced and offer progressively more advanced instruction;
- site construction and landscape treatment should progress in a manner that would allow spectators to view progress and to understand procedures; and
- where possible, visitors should be permitted to participate in the process of running the Park, that is — assist in the planting, cultivating and harvesting of crops at the demonstration farm, tend gardens at the farmhouse, participate in vegetable and fruit canning, exercise and groom horses in the stable, etc. This form of participation could be recognized in the form of a user's club, or organization of Friends of Bronte Creek Park, or in a reduction of the entrance fee, etc.

Circulation

Several modes of internal transportation were studied from the standpoint of capital and operating costs and the impact on the Park environment. The subject of circulation within the Park was discussed in the group workshop. Their conclusions regarding feasibility of several modes were similar to those of our engineers and planners.

Included in our studies were monorails, railways, cable cars and several new modes of transportation that are yet in the development stages. As a result of these investigations mini-buses are recommended for the primary internal system. These buses, containing about 30 seats each, should be specially adapted to Park use. The primary transport buses will operate on a special roadway.

The recommended secondary transport mode is the trailer train, with a seating capacity of about sixty persons. These trains will travel on either the mini-bus roadway or on specially designed pedestrian walks and will move at a slower speed. Stage coaches and farm wagons will be appropriate modes in the heritage farm portion of the Park. The trailer train for general secondary transport is considered most suitable because wheelchairs and people with walking difficulties could easily board the low trains with ramped platforms.

Other systems considered suitable for the Park are bicycling on pathways, separated from pedestrians and vehicular ways; horseback on bridle trails; and snow cutters and sleds on designated ways in the winter.

Snowmobiles, all-terrain-vehicles, mini-motor bikes and motorcycles are not considered appropriate vehicles to be used in the Park.

External Access and Parking

Regional automobile access will be provided by the Q.E.W., Dundas Street and Bronte Road. The Park can be entered from Dundas Street, Bronte Road and Burloak Drive. This allows for adequate dispersal of traffic around the Park and ample capacity for anticipated peak flows of entering or exiting vehicles.

Regional rapid transit and bus service will provide access to the Park via the present railway station and the new GO bus station on Bronte Road. Users will transfer at these points to the main Park transport system.

We have made the following Park users estimates for peak days:—

— day-users	27,800
— campers	1,200
Total by 1980	29,000

Of the total number of day-users, 23,600 are expected to arrive at the Park by automobile and 4,200 by GO train and bus. Automobile occupancy is assumed to be 4.0 persons per vehicle, so that some 6,000 car parking spaces will be required.

Interpretation

The Park is intended to provide users with many levels of experience and activity. The scope of the program will be sufficiently broad to allow users a choice of structured and non-structured experiences. The structured experiences will be carefully organized and led by Park staff committed to serving the public. The non-structured experiences will be equally well organized, but will leave interpretation options to the user.

The stream valley has been set apart as the prime interpretive area. All agree that the ecology of the valley wall and floor must be understood by users. Interpretive programs, as a pre-requisite for admission to the valley, were proposed by our group workshop interviewees; programs fashioned in a manner that imbue all users with the desire to protect the environment of the valley.

All interpretive activity should have a high level of adventure in its content. Our interviewees felt that some programs explain away all mystery, as though the person undertaking the explanation were justifying a superior understanding of the subject.

Agricultural heritage units should include smell and feel in the program of interpretation. The existing farms now group in the form of a rural Ontario community. Many farmyards still contain the structures arranged in the manner of a working nineteenth century farm. Park users should be permitted to experience the feel of the broader rural community and the narrower rural family life as it was prior to this century.

Design Character

The Victorian farmsteads are points of reference that help a visitor orient himself. They merit retention and augmentation in the Plan.

Other structures, pathways and plant materials are required to make the park. These additions must fit the environment and become additional symbols that increase its meaning. It is generally agreed that the treatment of existing features and all new improvements should be personal and romantic. The Park should become a pleasurable visual escape from the functional, the utilitarian and the standardized. This does not imply that all improvements are unique design objects, rather an opting for prototypes that, when combined into structures, communication systems or symbols for interpretation, are more reminiscent of the Victorian age than of the machine-for-living age.

Servicing

The Park will serve significant populations and requires complete sanitary facilities and piped water. Both services are available from the Oakville and Burlington P.U.C.'s, but they are a considerable distance away. Both municipalities have long-range plans for their trunk service extensions, but no definite timing can be predicted. Electric power is available from the H.E.P.C. lines on Bronte and Burloak Roads.

Appendix I describes the feasibility of a waste recycling programme. Appendix II deals with servicing implications in detail.

Development Plan

Objectives

The development objectives of the Plan, are:—

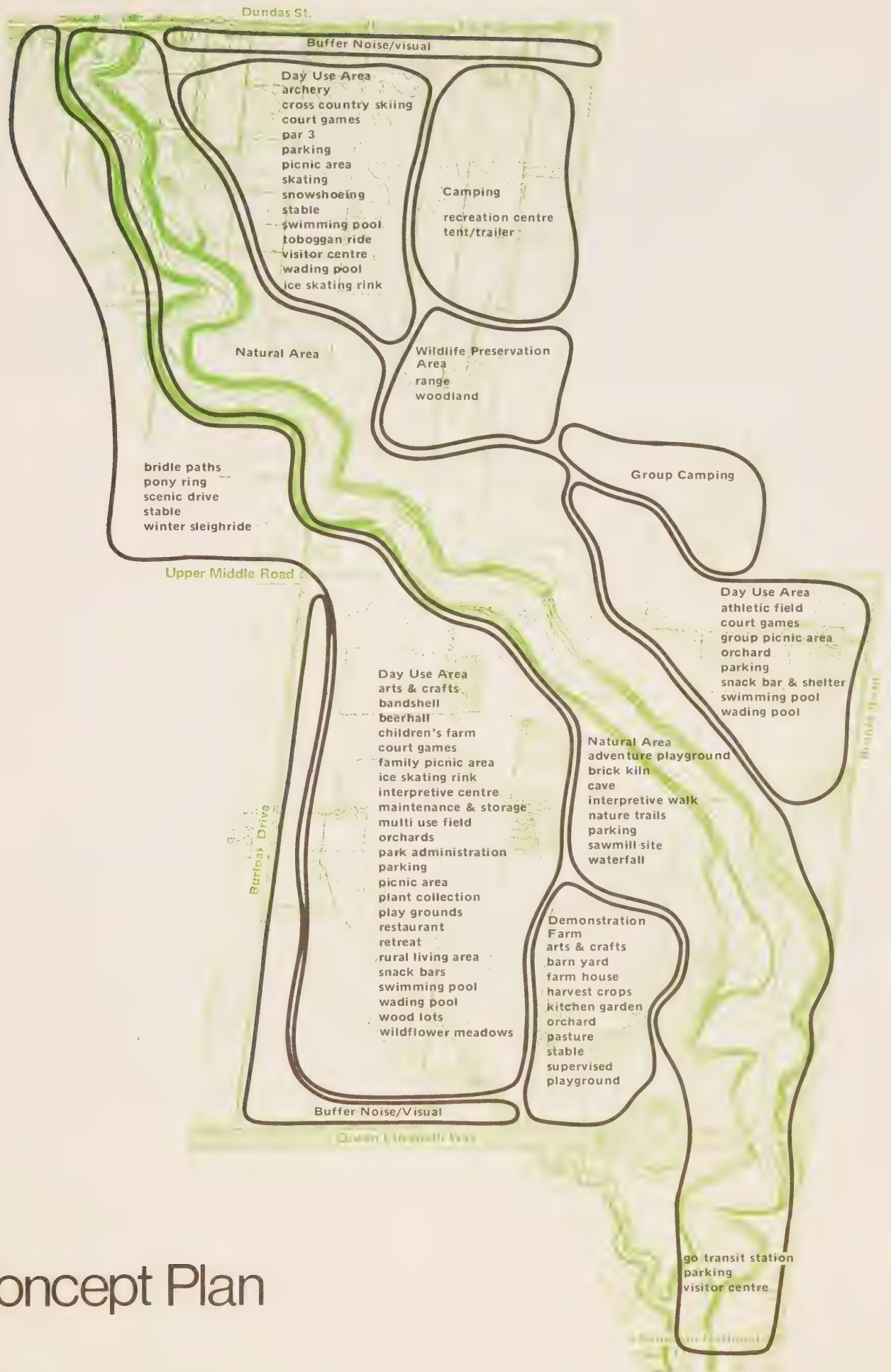
- to provide day-use recreation activities for the urban populations, with camping as a secondary objective;
- to plan for a variety of opportunities to serve the needs of large numbers of people of varying interest groups, ages, states of health and mobility;
- to preserve and protect the natural environment of the Park;
- to convey a passive appearance, but include both active and passive recreation areas;
- to interpret the ecological and cultural heritages of the park to the users;
- to incorporate traditional park activities while introducing new and exciting activities where appropriate; and
- to plan for future expansion and development on a staged basis.

The Park Plan evolved out of the desire to integrate the recreational activities of man into the unique setting offered by the site. The continual interaction between man and nature in an evolutionary context should be stressed as part of the interpretive program. For this reason the Plan proposes to demonstrate life styles of early periods linked with the present.

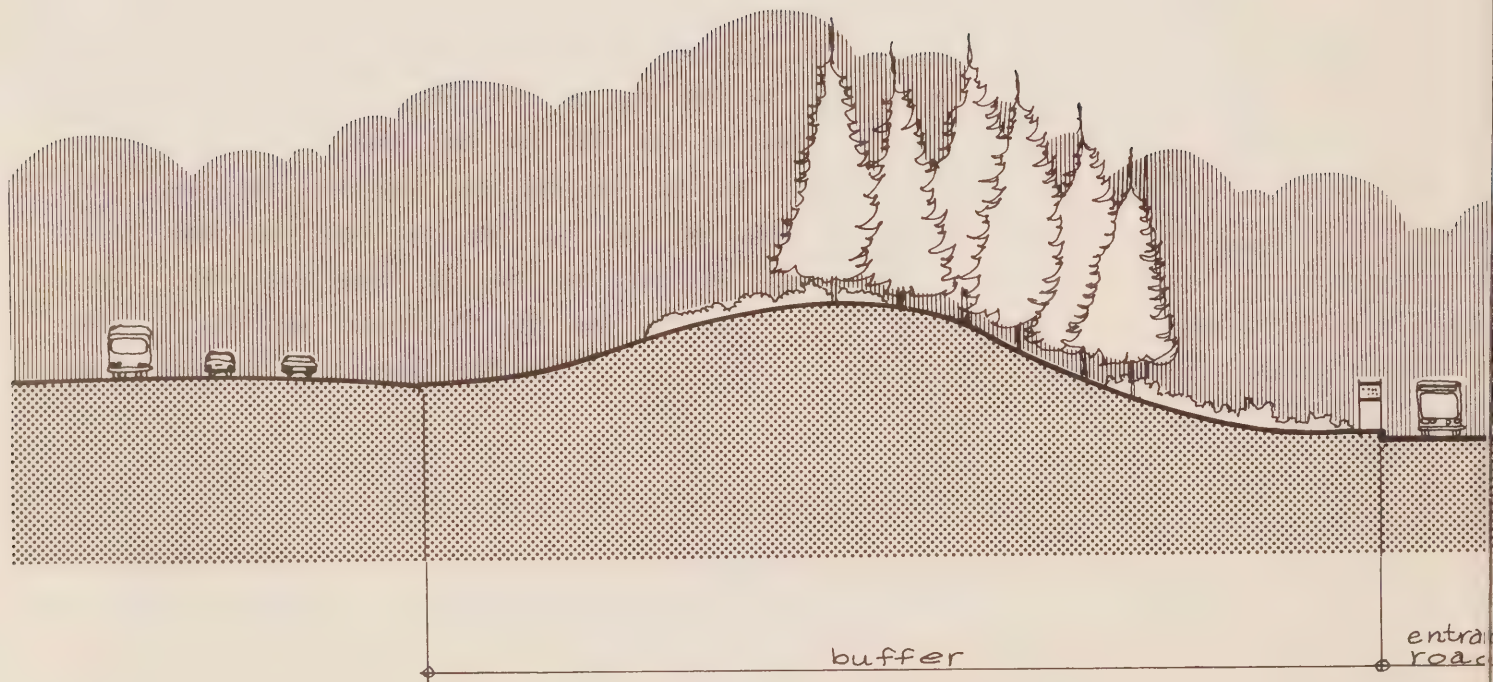
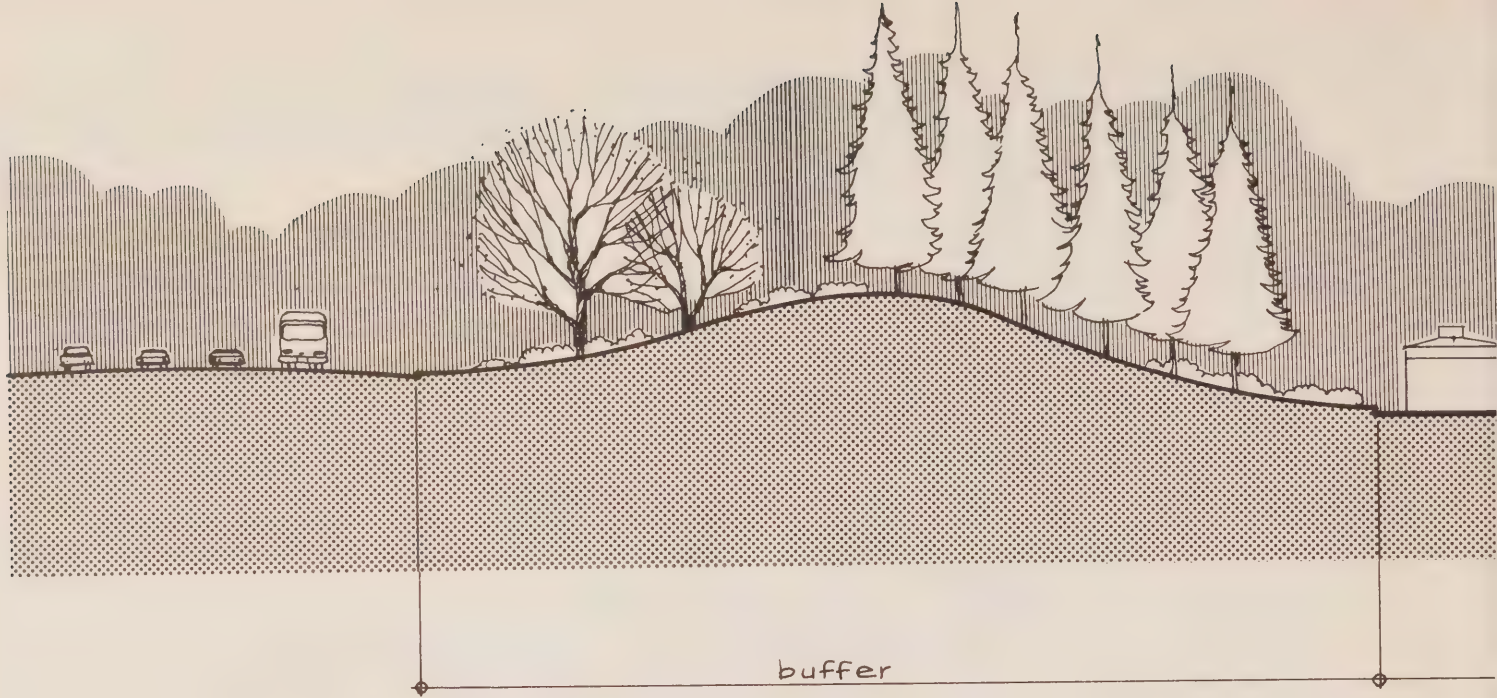
The original treed site was gradually cleared and evolved into the agricultural landscape we see today. The landscape of the pioneer period was shaped by survival criteria and later by the utilization of the natural resources for commercial purposes. The proposed Plan attempts to preserve and reconstitute

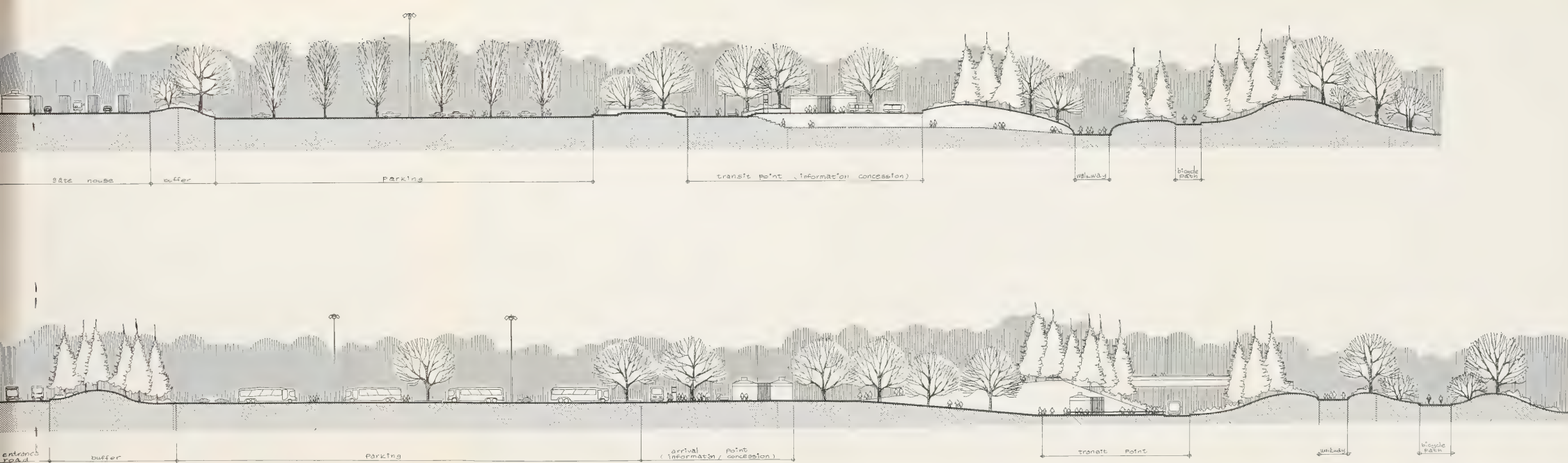


Picnic in the meadow



8. Concept Plan





9. Transit System

9. Transit System



10. Valley Crossing

the characteristics of these early periods, while integrating current recreation needs.

To accomplish these goals the Plan must deal with user needs and programs and with the visual qualities of the landscape, its spatial proportions and psychological characteristics, landscape moods and themes, vegetative species, microclimatic characteristics and user capacities.

Spatially, a hierarchy of outdoor “rooms” is proposed, varying from small areas for children to large 30 to 50 acre play meadows.

These spaces, like the bays of a lake, will be woven into an interconnected sequence of aesthetic and spatial experiences.

We have stressed that the plan must provide a variety of opportunities and experiences. This diversity will give the user maximum freedom to choose and select within one environmental context. The secret of the plan will be its ability to provide a strong “structural” framework which assures order and orientation, without becoming overbearing and tiresome. Individual freedom of choice within an overall planning context is perhaps the greatest management challenge, requiring both sensitive design and staff recruitment.

Use Description

The Concept Plan on Figure 8 indicates optimum allocations of user and administrative activity areas throughout the approximately 2000 acres now held by the Province. This allocation includes the following major uses:

- Nature reserves
- Demonstration farm and agriculture
- Picnic grounds
- Playing fields and court games
- Swimming
- Camping
- Parking
- Park services and main roads
- User services and information
- Winter sports areas
- Stables
- Arts and crafts centres
- Day care centres
- Adventure playgrounds
- Trails

Access and Circulation

Access to the park is planned at four entry points (3 for automobiles) with the possibility of another auto entrance off Burloak Drive, if required at peak periods. The entrances should have strong, unified identities, clearly marking them as gateways into the Park. A boulevard treatment with double rows of sugar maple, integrated into imaginative landform settings, is proposed.

Automobile circulation is limited to a concept of peripheral roads and parking. Each parking lot is connected to the mini-bus and trailer train routes, the main connections to all points of the Park. These internal transportation systems provide scenic access to all the activity areas and will be especially useful for elderly and physically handicapped persons.

Burloak Drive between Upper Middle Road and Highway 5 is proposed as a scenic route accessible only to park buses, horse and buggy, pedestrians and bicycles. A loop road will be constructed off the re-aligned northern section of Burloak Drive to maintain access to existing homes. No vehicles are allowed into the valley with the exception of the main bus connection from the GO station.

One vehicle crossing is proposed over the valley, providing the park with a complete internal circulation system. This crossing is adjacent to Highway 5, linking the scenic drive with the mini-bus system in the east. A new bridge deck is proposed to span the pylons of the old No. 5 highway bridge, but this is dependent of the engineering feasibility of using the existing structure.

Plan Components

The activity areas shown on the plan evolved out of our analysis of the natural and cultural features of the site. They form an evenly dispersed geographic pattern and lend themselves to the development of activity nodes. Facilities such as the Medland and Burkholder farms become “pearls on a necklace” in that they are important people-oriented places in contrast to the large, natural intervening open spaces. A typical succession of these experiences, as perceived either by walking or from the trailer train, could be as follows:

- demonstration farm — arts and crafts centre — swimming/picnic area — rural living environment — playground — childrens farm — woodlot — orchard — visitors centre and pleasure skating ice rink.



Woodland trail

With the variety of experiences offered, the user would have an infinite number of recreation activities made available which we expect will encourage people to explore and understand the park on a long term basis. Intensive uses and activities generally occur on the periphery removed from the stream valley and its fragile slopes.

Central Area

One major, centrally located activity node is proposed. It contains a visitor centre, interpretive facilities, park administration offices, first aid and medical unit, bandshell, pleasure skating rink, plant collection display, observation tower, and snack bar. With its strategic location at a primary crossing point it also becomes the means to control access of people into and across the ravine.

Access to the ravine is by means of external conveyors that run down the surface of the slopes to a terraced boardwalk and pedestrian bridge. (See Figure 10). With its raised terraces and small shelter it will blend harmoniously into the landscape. Terraces are proposed where they relate to scenic picture taking points, such as the waterfall and various stream vistas.

Trail systems are integrated with the bridge circulation and provide an easy, lower level walk. The lower trails form a loop and end where the topography becomes too abrupt to proceed easily. This will help to control penetration into the ravine, while allowing people a valley experience in an area that is capable of handling higher use intensities.

Agricultural Areas

The Henry Breckon, the Burkholder and the Medland farms comprise the core of the Park’s agriculture theme areas.

The Henry Breckon farm will be a demonstration farm, portraying both traditional and contemporary techniques, showing the urban dweller evolutions in agriculture. As a working farm it would contain dairy cows, barnyard animals, pastures, harvest crop fields, orchards and a vegetable garden. One of the features of the park would be home grown produce, either to be used in its restaurants or sold on the site.

The Burkholder farm, with the high architectural style of the old homestead, is thought of as an area where rural life can be interpreted. It can become a meeting place for activities such as corn husking

contests, a country fair or auction, pie baking, cider pressing and country dancing. A beer garden could be an activity associated with the barn. A restaurant, perhaps in the residence itself, would provide an excellent environment to serve typical recipes common to earlier days with menus containing fruits and vegetables in season, corn bread, smoked bacon, roast pork and apples, turkey, home made rolls and pies.

The Medland farm with its unique piggery lends itself ideally to a childrens farm area. Farm animals, garden plots, pony rides and egg incubation areas, related to the scale of a child, would make this an important interpretive node. Edges of fields planted with raspberries and blackberries would allow children to pick the berries freely and possibly create a new experience for many. A farm oriented adventure play-ground is also proposed.

Trails, Bridle Paths and Bicycle Ways

A trail system is proposed to provide a connection to the Bruce Trail outside the park, while linking areas of interest within the Park. Trails occur in the valley area, but with the exception of the eastern crest trail, they are not continuous throughout the valley. The trails generally provide access down the slopes to areas of natural or cultural significance and allow for safe crossings of the stream at five locations. They become important parts of the interpretive program and can be given names representative of the various themes. The *Cordoroy Trail* for example could show how early roads were built. The *Sawyers Trail* leads to the site of the sawmill and the *Orchid Trail* through the sensitive orchid and trillium areas. Generally, the trails should be open to all and should contain interpretive information along the way to allow for self-interpretation. In the very sensitive areas, controlled, guided access is, however, essential.

The bridle and horse wagon paths are an important feature of the Park and again relate to the development of themes; — a horse and buggy ride along the *Scenic Drive*, the Hayride in the eastern pasture area and the Logging Wagon Ride around the demonstration farm, leading down to the sawmill.

Bicycle paths are integrated with the pedestrian and mini-bus systems. Special design detailing is required to separate the cyclist from other means of movement.

Recreation Areas

A variety of recreational activities will be available to the visitor. Facilities that encourage competitive, league type sports have been de-emphasized, but provision has been made in the picnic areas for such activities as soccer and baseball.

The proposed recreation facilities include swimming pools, a variety of playgrounds including a unique "water adventure playground" down by the creek, stables, an 80 foot toboggan slide, a free-form pleasure skating rink, court games, an archery range, and arts and crafts centres.

Related to the major facilities are day-care centres which allow the parents the opportunity to explore the park by themselves and to take advantage of adult oriented recreation activities, to be programmed for both day and evening use.

In the camping areas we propose that social centres be developed, using existing farm buildings wherever

possible. These centres can offer a variety of programs serving various age groups.

Wildlife Preservation Area

In the Preservation Area we find the best stand of upland dry forest and prairie grass pastures. This unique area should have minimal development and is recommended for wildlife management. It would be an ideal habitat for a small deer herd, indigenous animals, pheasants and other field birds. The preservation of this area, with its open fields and adjacent woodlands, will help ensure the survival of the Bronte Warbler whose lyrical song is unique.

Access to the area must be controlled and we have suggested that it be by means of guided tours using the trailer trains. This implies that the site must be fenced around its entire periphery. The interpretive program could relate to the plant and animal communities and explain the various types of wildlife management practices being utilized, such as the planting of fruit bearing shrubs and field crops.



Wagon ride down Maple Lane

Park Management

The need for an effective, imaginative and well-trained staff led by a dynamic and creative Director is central to the success of the whole concept for Bronte Park.

This section of the report deals with estimates and recommendations regarding the Park's staff requirements, in terms of numbers and timing. It emphasizes the required attitudes of staff members, the need to recruit staff before the Park's opening and it offers suggestions regarding public relations and a system to monitor future response to performance of the Park.

Staff

The staff of such a large enterprise, based on new design and operational concepts, will have to have unusual qualities and skills, if favourable user response and environmental protection are to be achieved. They must have energy, enthusiasm, imagination, initiative and tact. Above all they should be committed to serving the public. They should be knowledgeable, friendly, sympathetic and readily available to the public.

Since it takes time to produce such people, the recruitment, where necessary, and the training of key personnel, some of whom may come from scientific or other specialized backgrounds, should start well in advance of the Park's opening (4).

Director's Role

Much will depend upon the personality, powers of leadership and enterprising skills of the Director. He should be experienced and well-trained and must have a broad knowledge of a wide range of subjects, from natural science and horticulture to promotion, from basic law to public relations, from staff management to planning process, from history to ecology. Above all he should have imagination and flair and an ability to extemporize. He should have a fertile promotional talent. Such people are in increasing demand on the North American Continent and consequently are difficult to find.

(4) Courses now exist in Ontario for training such personnel. The Arts Administrator program at York University and the Royal Ontario Museum Museology Course both train young graduates for positions requiring the kinds of skills the Park will need.

Managerial — Full time

Each area of activity of interest in the Park should be the responsibility of an expert. The management team should include a camping manager, sports director, crafts administrator, farming manager, stable master, catering manager, head of nursery services etc. The success of each activity will depend heavily upon them. Each should have a trainee or second-in-command, able to assume responsibility in his absence and to take over the position if he should personally be unavailable.

The various interest areas and service departments each require particular skills in those who will be in charge of them. While a complete identification of staff functions and responsibilities is beyond the scope of this report, it may be of value to outline them for the proposed Display Group, as an example.

An efficient display staff should be responsible for the design and development of displays, signs, maps, publications, uniforms, new projects, etc. A young architect, interested in restoration, ecology and graphic design, as well as in the broader social problems of modern life, might be a good choice. While most construction work might be sub-contracted, he should have a small team of maintenance workers at his disposal, including carpenters, plumbers, electricians, etc.

Technical — Full Time or Part Time

A variety of specialized scientific and technical skills should be represented on the Park's staff, including forestry, botany, horticulture, ecology, geology and archeology. In addition to their normal park functions, these staff members or part-time consultants should become involved in organizing and teaching special interest groups of users, which might make the Park their headquarters.

It is not too soon to begin the search for such personnel in order to give them the special training necessary to apply their knowledge to the public service at all levels with special reference to the Park. In some areas consultants or part-time experts such as junior university staff might be considered for such services.

Many part-time workers will be required to serve during periods of peak attendance or special functions. Instruction and training classes should be

prepared by the permanent staff well in advance of opening, to prepare these people for their particular jobs.

The staff's attitude and personality will greatly affect the atmosphere of the Park and the response of the public. Those who train them in their roles should be responsible for inculcating in them a group-purpose, a sense of pride in the Park and loyalty to its ideals. Some active senior citizens and handicapped people might be attracted to the Park's full-time or part-time staff, which would have both intrinsic value and sociological significance.

Volunteers — Unpaid and Paid

An exceptional opportunity exists to enlist the help and involvement of volunteers, with little or no pay. The formation of such groups is a familiar method of encouraging public involvement, provided that they are well organized, well directed and well controlled. For the Park, their involvement will demand special consideration and advance planning. A paid "Co-ordinator of Volunteers" might be a good investment to contact potential groups, organize a special "Friends of the Park Association" in advance and to lay down the guidelines of their involvement and support. It has been proven, however, that volunteers on an unpaid basis cannot be relied upon for regular services, but such groups can have a significant public relations value. They can, for example, be entrusted with the organization, development and publicizing of a range of special events, e.g., a Winter Festival or a Crafts Exhibition. Volunteers who are paid even on a most modest scale are more reliable and amenable to instruction and discipline, and more willing to study, than the unpaid. The Park in this manner might provide an unique opportunity to attract farmers back to the land. Able senior citizens have also proved their value in such functions.

Staff Build-up

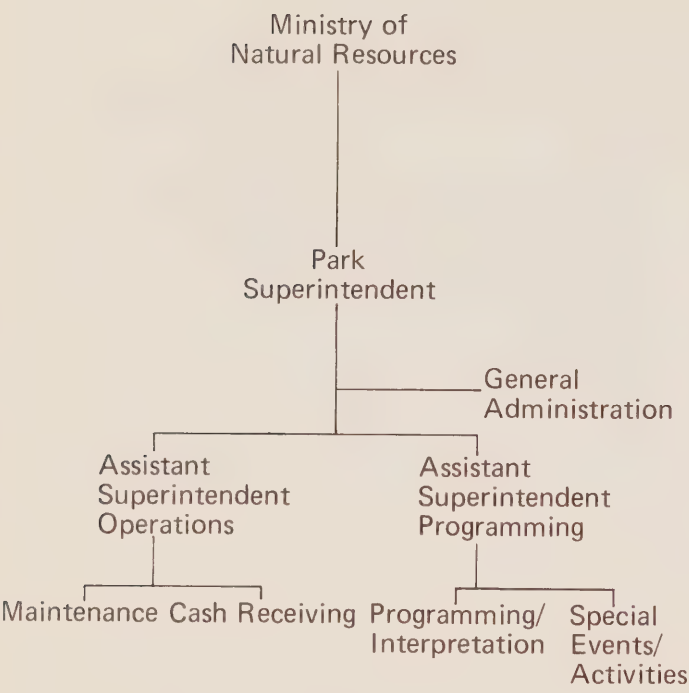
Although the Park will operate only on a limited basis in the first year or two, the initial years will nevertheless require a relatively speedy build-up of personnel, which will then slow down in subsequent years. Key personnel should be sought in the near future and training programs should be started to instruct part-time helpers in their roles.

The figures on Table B are highly speculative and some staff included as full-time may in fact be better employed on a part-time basis.

Management Organization

Table A outlines the organizational structure proposed for the Park's decision-making and operational processes. It is important to develop a structure which will meet the immediate planning and operational requirements, as well as those of the future, when the staff and functions of the Park increase. In consultation with the Ministry's staff, the Organization Chart was developed; it proposes a professional management group of three — a superintendent and two assistant superintendents. The Assistant Superintendent, Operations is responsible for the maintenance and cash receiving functions, while the Assistant Superintendent, Programming is responsible for the programming, interpretive and special events and activities sections.

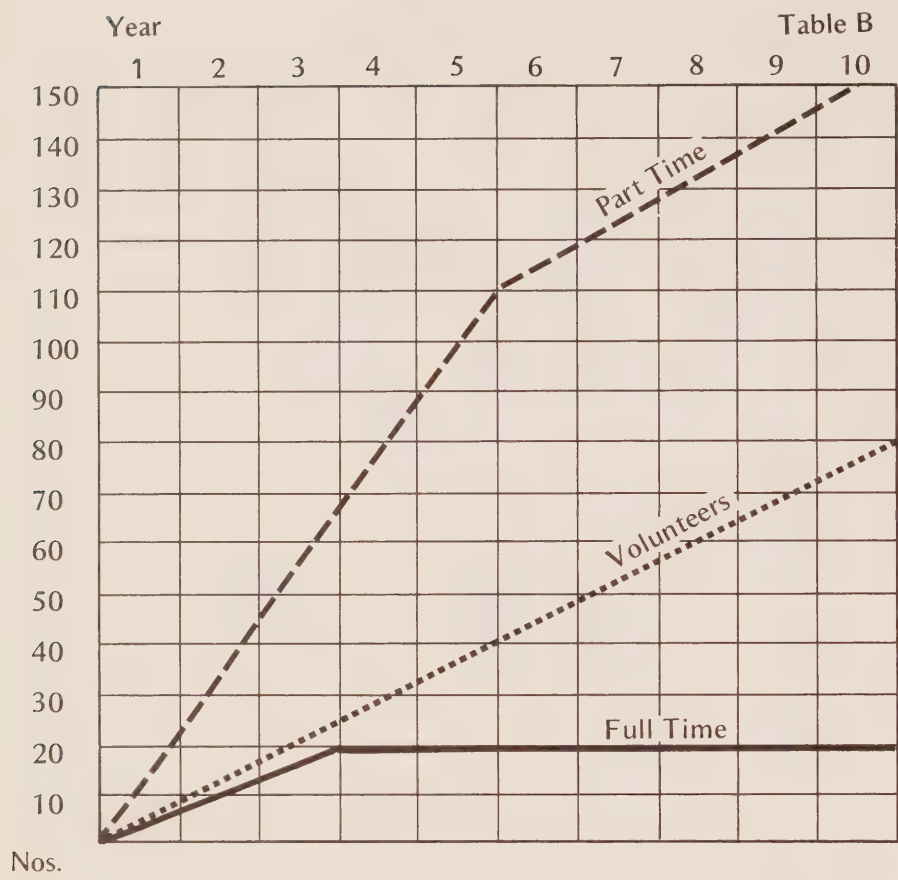
A- Proposed Organization



B-Proposed Staffing

	Full-time	Part-time Seasonal
Administrative		
Superintendent	1	—
Assistant Superintendents	2	—
Clerical	1	1
Stenographers	1	2
Receptionist/Public Relations	—	1
Sub-total	<u>5</u>	<u>4</u>
Programming		
Orientation & information (Visitor Centre)	—	8
Interpretation		
— Historian	—	1
— Naturalists	1	15
Recreation		
— Swimming areas	—	20
— Day use supervisors (including social activities for campers and sports)	—	3
— Stables (if not a concession)	1	7
— Day nursery	1	5
— Craft centre	1	5
— Farm	1	2
— Children's play areas	1	6
— Helpers for handicapped persons (excluding volunteers)	—	3
— Restaurant (if not a concession)	4	12
— Retreat	1	3
Sub-total	<u>11</u>	<u>90</u>
Development & Operations		
Technical	2	10
Maintenance	—	35
Camp rangers, gate staff & operations (transportation operators)	<u>2</u>	<u>30</u>
Sub-total	<u>4</u>	<u>75</u>
TOTAL STAFFING	<u>20</u>	<u>169</u>

C - 10-Year Staff Projection



Operating Revenues and Expenditures

We expect that the operational characteristics of the Park will be significantly unlike any other provincial park and will require special administrative procedures, as well as revenue producing facilities not found in other parks. To establish a meaningful set of target revenue estimates to cover programmed operations, we have based our appraisal on the following assumptions:—

1. After a reasonable start-up period (say 4 to 5 years) recurring operation costs must be matched by revenues;
2. high revenue producing activities must remain under the control of the Park, so that their profits can be applied to the Administration's desirable low revenue facilities;
3. Park admission charges must at least cover the costs of grounds maintenance and the upkeep and depreciation of all general purpose facilities; and
4. operational accounts will be carefully monitored and the Park Administration will have authority to effectively adjust policies and programs to match user participation.

By the 4th year we expect that annual Park admissions will exceed 2.1 million people. This assumes the following pattern for that year:

10 days @ 40,000 daily admissions
20 days @ 20,000 daily admissions
30 days @ 10,000 daily admissions
30 days @ 7,500 daily admissions
90 days @ 5,000 daily admissions
180 days @ 2,000 daily admissions

Architectural Criteria

The unheralded “farm architecture” quietly developed in North America in the mid 19th century without architects. The farmers who lived so close to the land, built as only they knew how — out of respect for land and nature. A cleared site might be left with one island of growth, behind which the homestead nestled. A dip in the land might form a unique microclimate to provide a perfect site for the barn where the winds of winter lifted over the roof and the breezes of summer circulated freely within. Incredibly sensitive to all the patterns of nature, the farmers learned where certain stands of trees would mean good drainage and tillage. Harmony and balance of architecture were not contrived; they evolved naturally as indigenous growths of the land from which they sprung.

In Bronte Park today some very fine examples of this sensitively built farm architecture still exist; unfortunately some structures due to the ubiquitous urbanization have become unservicable. Our aim is to restore the homesteads, barns and silos, so that the visitors to the park will be able to see the whole fabric of life as it existed on the farms 50-100 years ago. The home crafts of weaving, quilting, sewing, baking, woodworking, black-smithing, and animal management will all be demonstrated. For most who have spent their lives in urban surroundings these experiences will probably be entirely new.

Apart from the preservation and restoration of existing structures, new buildings must be developed to house the numerous programmes and facilities that will become part of the new Park. The architecture must be fluid, dynamic, easily adaptable, readily changed. It must be simple, sympathetic to the site and open ended in organization of shelter units. In concept it is an architecture without walls, where open spaces and the exterior “rooms” of nature flow easily into the interior “rooms” of man. In short it must be an architecture of generosity and harmonious juxtaposition with the land. (See Figure 11)

To develop Bronte Park is the chance to rediscover, to take off the blinders and see nature again — the whole architecture of nature — the trees, the hills, the ravines; to listen to the birds and watch wheat and long grasses bend before the wind, to hear the music of the leaves — to feel the essence of nature.

Grouped almost exclusively at the most southerly end of the Bronte Park site is a cluster of farms, which

once formed part of a prosperous rural community. In plan the farms are not unlike; each has a large wooden barn at the northern extremity of the site and a brick farm house to the south. Ancillary buildings between the two, complete the farm complex.

With the barns, it is a question of determining which ones will be preserved or restored and which ones will be demolished and have their timber and foundation stones used for the restoration of the others. Criteria hinge on the overall park program and the priorities of budget.

Our recommendations include the preservation of the complete system of farm structures, rather than the piecemeal restoration of certain individual buildings. The uses assigned to each preserved structure should maintain a heritage aspect that inculcates user respect and care.

Based on these criteria, we recommend the following:

- A demonstration farm should be located on the site of the Henry Breckon Farm. Farm life operations, using old and modern techniques, would be demonstrated.
- An arts and crafts centre and child day-care centre should be located on the site of the Fred Breckon Farm. While various types of arts and crafts centres are envisioned, this facility could cater to rural homemaking activities. The child care centre would provide park visitors with a supervised play area to allow parents leisure time to pursue their own activities.
- While the buildings of the Joe Breckon Farm are not of the standard of the others, the farmstead is located on an interesting site. The main buildings are on a gentle rise in the land that slopes down to a shallow swale. A swimming pool change house is proposed on this site, and it may be possible to use the buildings for other related activities, or as day-use shelters or pavilions.
- A rural community centre should be developed on the Burkholder site. As an historic farm with excellent buildings, it could contain the furniture and artifacts of the period while allowing people to get together and socialize in any number of



11. Picnic Shelter

“old-fashioned” ways. A beer garden within the farmstead and the development of a restaurant serving traditional receipes would constitute an amiable, relaxed atmosphere.

- The Medland Farm is also of great interest because of its brick piggery and the intermittant stream flowing through the site. Its intimate scale lends itself to a variety of childrens activities. The duck pond, chicken coop and piggery are representative of activity areas that can be developed, while preserving the character of the farm.
- The Pickett farm is important because of the site. The new Visitors/Interpretive centre is proposed here, with the silo retained as a focal point and lookout tower. The pleasure skating rink and plant collection would be developed in the adjacent orchard and field areas.
- The Smith Farm is slated to become the centre for the tent/trailer camping grounds. In the initial stages of Park development it is suggested as a staff and administrative complex. Ultimately, with the development of the camp site in the northern quadrant, it is envisioned as a social centre and part of the historic interpretive program.

The architecture of Bronte Park should evolve out of program requirements, the Victorian farm proto-types, determinants of nature and the considerations of human scale. It should be an organic architecture that blends with the ground, adds accent to the natural panorama and evokes creative response by the user.

Park architecture is unique, for it exists in an environment where nature predominates. It becomes a matter of integration rather than domination and requires the greatest creative skill. It is heavily oriented to the circulation of people. It is generally vulnerable to abuse through isolation. It must offer shelter from the elements. It must be capable of accepting changing program requirements. Given these considerations, the simplest solutions will be the most successful. An architecture based on the development of a unified structural system and careful selection of building materials, will provide human scale order, expression of function, and beauty.

The structural system will accommodate the merging of interior and exterior circulation, while allowing for

variation in volumes. It will meet the needs, ranging from the proportions of barn spaces to the intimacy of private offices. It will allow for the development of roofscapes with forms that evoke the age of clustered barn roofs. In Bronte’s open, agricultural landscape the profile and silhouette of the roofs accent the natural landscape in a manner similar to the villas of Italy’s Truscan landscape.

The existing structures made good use of indigenous materials and nature often furnished motifs for the vernacular forms of construction. The materials of the barns, the heavy stone foundations and the hewn timber, provide us with a primary palette. The stone is to tie the building into the ground and to endure the rigors of the seasons. Wood is the most humanly intimate of materials; whether pole, beam, plank, board, slat or rod, it adds an organic richness to the park buildings.

Deep shadows formed by protecting roofs and the warm golden light of the late afternoon sun will allow the buildings to become natural outcroppings of the land. The subtly rolling fields of the farm landscape are expressive of all the qualities of light; light diffused, light reflected, light refracted, light shimmering in summer sunlight or moonlight. Proper orientation can capture these natural potentials.

A diversity of new buildings will be required ranging from storage sheds to complex interpretive and visitor centres. The types of buildings anticipated to be necessary are:

Recreation	Administration	Maintenance
shelters	park head-	offices
change houses	quarters	garages
day care centres	staff accom-	vehicle repair
arts/crafts	modation	general repair
centres	visitors centre	warehouses
restaurants	camp offices	storage facilities
concessions	gatehouses	
social centres		
interpretive centre		
interpretive stations		
stables		
observation tower		
conference centre		

Publicity and Promotion

The Park's attractions, facilities and programs should be publicized with the objective of promoting their use by the region's people. We envisage that it will be directed at both the general public and a variety of special interest groups of all ages. The promotional philosophy and approach must carefully be considered and skillfully designed to create a sense of public loyalty and pride in the Park. The users must as soon as possible come to see it as "their" Park and develop a sense of responsibility to protect and preserve it.

The promotional program could include elements such as a news bulletin, Park memberships, a Park logo or insignia, publications about the Park aimed at both children and adults, and information signs in the Park. The program planning team of the Park's staff should be closely related to the promotional process; a communications system will be needed to ensure that those people who should know what is going on are in fact informed. Something of interest should take place in the Park throughout the year, so that the public will always want to know "What's on in the Park this week?"

Monitoring

Changing circumstances and evolving public needs will require quick response by the Park staff. A process must be designed which gives the management a continuous flow of information about the level of acceptance and appropriateness of current programs, complaints or new ideas of both users and staff and so on. Such a system of monitoring will be the basis for an on-going program of Park improvement and up-dating, thereby allowing the public's goals to be met.

The atmosphere intended for the Park is not conducive to elaborate visitors surveys. Information should instead be sought by means of simple questionnaires. These could be included in Park guides or pamphlets. The staff should become trained to perceive user responses to programs and facilities, through casual observation. They may also be instructed in the techniques of interviewing.

Questions should be as short as possible and be logically and clearly designed. Only the most valuable information should be sought initially, and the scope

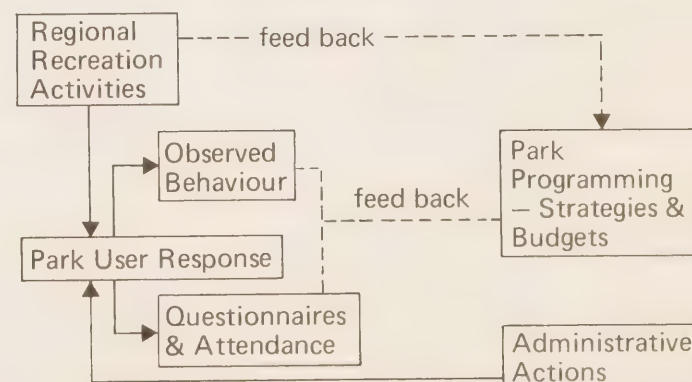
can then be expanded in later years. The essential information to be sought is:

- 1) Home address; to indicate the market;
- 2) Frequency of visits;
- 3) Composition of party — individual, family etc., will demonstrate the groups to be catered for; a high proportion of family groups will indicate the need for emphasis on services for families and children;
- 4) Attractions and facilities visited and satisfaction rating — will indicate popular areas deserving more extensive consideration by planners;
- 5) Occupation of head of household and age — will expand the management's understanding of promotional activities;
- 6) Space for comments and suggestions

A rapid and accurate coding and assessment system should be devised.

Attendance will be relatively easy to assess through ticket sales, colour coded for adults and children. Special surveys should be made of school groups and other special interest groups who visit the Park. Whenever this is appropriate, their representations or suggestions should be incorporated into the planning process. This would have a community involvement value in addition to generating interest and even financial support. The public relations value of a questionnaire that is well-designed and politely solicited should not be underestimated, for a public increasingly critical of large-scale projects undertaken with public funds.

The following diagram illustrates an approach to organizing the monitoring system.

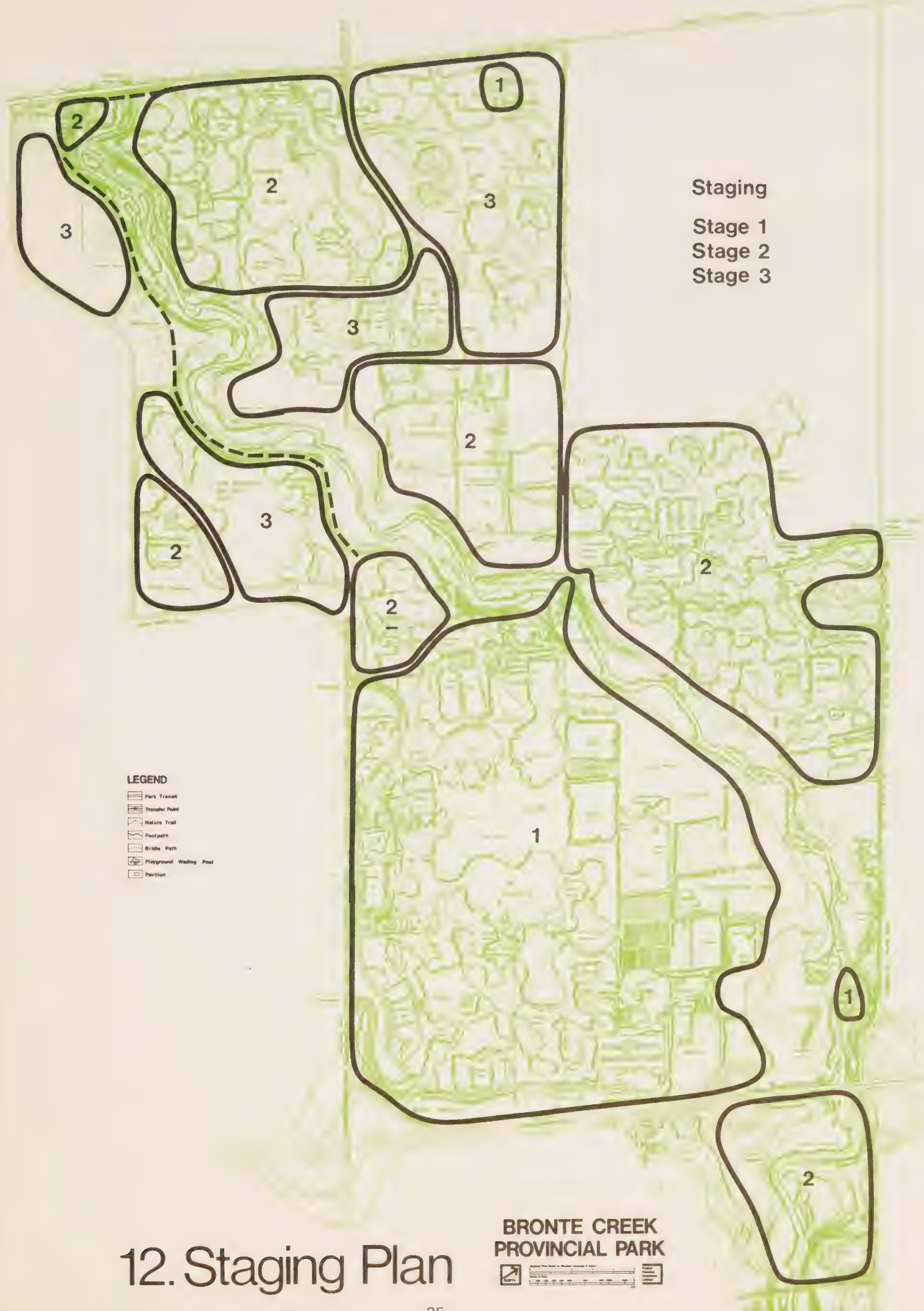


12. Logo Description



The objective of an effective logo is to capture the spirit and components of the subject it represents in the simplest way, so as to aid in its identification. Upon studying the Park, two components — the creek valley and the upper agricultural tablelands — become the essential elements. An illustration and example of a logo format follows. The logo is contained in a circle and is bisected by a curving line representing the creek and valley. The line is expressed in the form of the yin and yang line, which creates two harmonious curvilinear forms within the circle. This harmony of form expresses the goals of the Park which are related to the integration and balance of man's activities with the natural environment. The tablelands are expressed by the green areas; the creek by the blue line.

In planning the Park, it was felt that a central pedestrian link should join the two tableland areas, giving people the opportunity to enter the fragile valley from both sides. This central link is expressed in the logo by a trillium flower, placed in the centre, which at the same time is indicative of the types of flora to be found in the Park.



Staging

Stage 1

Stage 2

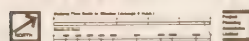
Stage 3

LEGEND

- Park Transit
- Transfer Point
- Nature Trail
- Footpath
- Bridge Path
- Playground/Wading Pool
- Pavilion

12. Staging Plan

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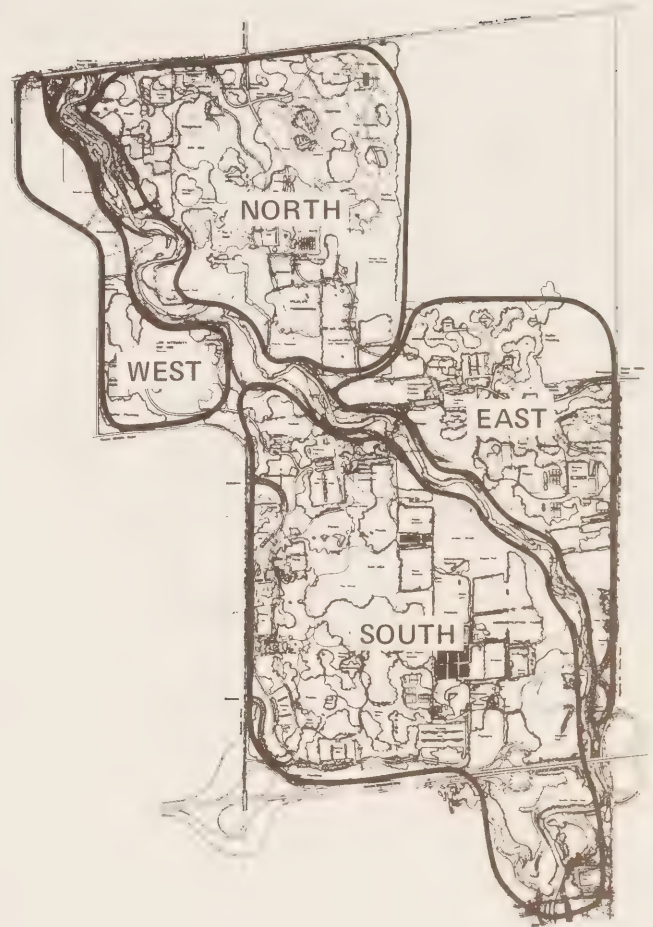
Staging

In considering the characteristics of the site, a series of alternative staging plans were developed, based on different development strategies. The program we recommend is based on a strategy of developing the Park on a quadrant by quadrant basis. This will provide the user with maximum benefit, while meeting budget and municipal servicing constraints. Stage One is concentrated on the development of facilities in the southern quadrant. The eastern quadrant is suggested as Stage Two, while the northern and western quadrants basically comprise Stage Three.

Stage One is proposed in two phases, with completion of the first phase by June of 1973. With the lack of municipal services in the area and the indefinite timing for their provision, it will require that Phase One be serviced by temporary means. Septic systems will not have a great capacity and the supply of water from wells will be limited. Therefore, Phase One must be modest in scale. The Phase Two aspect of Stage One and Stages Two and Three are dependent on the provision of services. The facilities breakdown on a staged basis is on Table D.

D-Implementation Staging

SOUTH QUADRANT	EAST QUADRANT	WEST QUADRANT	NORTH QUADRANT
Stage One Phase One	Stage One	Stage One	Stage One
- access roads	- no work	- no work	- interim park offices
- parking lots	Stage Two	Stage Two	Stage Two
- welcome centre	- water & sewer ser- vices	- maintenance compound	- toboggan hill
- trails	- access roads	- access road	- access road
- day use area	- parking lots	- planting	- parking lots
- shelters	- welcome centre	- grading	- welcome centre
- lavatories	- day use area	- scenic drive	- planting
- signage	- campground	- shelter/lava- tory	- grading
- planting	- shelters	Stage Three	Stage Three
- grading	- planting	- maintenance buildings	- shelter/lava- tory
- playgrounds	- grading	- day use area	- water & sewer ser- vices
Stage One Phase Two	- lavatories	- planting	- access road
- water & sewer ser- vices	- concessions	- retreat/confer- ence centre	- parking lots
- terraced bridge	- swimming pool	- road	- concessions
- swimming pool	- change house	- parking lot	- campgrounds
- change house	- trails		- stable
- walkways	- walkways		- bridge deck
- trails	- wildlife		- walkways
- planting	- management area		- trails
- grading	- maintenance building		- planting
- demonstra- tion farm	Stage Three		- grading
- childrens farm	- parking lots		- pleasure skating rink
- rural living centre	- day use areas		- interpretive area
- stables	- playfields		- playfields
- park offices/ visitors centre	- planting		
- interpretive centre	- grading		
- plant collec- tion			
- observation tower			
- roads			
- parking lots			
- day use areas			
- day care centres			
- pleasure skating rink			



Appendix A

Municipal Services

It is expected that on peak days some 30,000 people will be in Bronte Park at the same time, mostly day-users, but also including campers. Because of this intensive use it is essential that piped sewerage and water supply systems be installed, rather than rely on septic tanks and wells. Both the Towns of Oakville and Burlington have trunk sewers and watermains at some distances from the Park and it is recommended that the Park's systems be connected to these. Similarly, electric power for the Park should be taken off from the nearby facilities of the Oakville P.U.C. or H.E.P.C. system.

Piped water should be provided to all service areas, for ordinary consumption and for fire protection. In addition, an underground irrigation system is suggested for the intensively used grass areas which are subject to drying sun and winds.

A gravity sanitary sewer system is recommended to connect to all service areas of the Park. This system should tie in with the local trunk sewers to the south and through them with the municipal sewage treatment plant. Only some of the more remote shelters could be served by septic tanks and tile beds, unless vacuum toilet facilities are used (see Appendix B).

Surface or storm drainage should be provided by means of roadside ditches and culverts, leading to natural swales and watercourses. No storm sewers are recommended.

Electric power for lighting, appliances, pumps and other equipment should be provided by underground cables. The only exception should be power for security lights on trails and in the valley.

Appendix B

Feasibility of a Waste Re-cycling Program and a Vacuum Sewage System

In view of the scale of Bronte Park and everyone's concerns about pollution and the conservation of our natural environment and resources, the feasibility of several methods of waste collection and recycling were investigated. Unfortunately, the conclusions were that the economics of known innovative systems are such that they cannot be recommended for the Park. Nevertheless, it is useful to summarize our findings.

The objectives of our studies was to determine how the affects of pollution produced by the Park can be minimized and whether the solid and liquid wastes can be recycled to result in usable or marketable products.

Solid Wastes

The Park users will generate considerable volumes of waste paper, bottles, cans and other trash. A number of municipalities, including Metropolitan Toronto, have studied the matter of recycling solid waste, but even at their scale they had to abandon the concept, at least temporarily. The costs are so much greater than the revenues from recycled materials, that economics demand that much more research is necessary before a workable system can be formed.

Bronte Park will of course generate much less waste than, say Toronto and any currently known recycling methods must be regarded as impractical. The necessary equipment and facilities are very expensive and the volume of and the markets for recycled materials would be too small.

Liquid Wastes

The Park will produce liquid wastes of a domestic type, rather than noxious effluents. These wastes can be treated and re-used for various purposes. If they were to be collected in the area's municipal sewers, this recycling would in effect happen. They would be treated in the sewage treatment plant, from where the effluent is discharged into Lake Ontario, eventually to return in the water supply system.

The Park's liquid wastes could also be collected in its own sewers and treated on the site. This would involve a sewage stabilization pond in which the

waste is treated, after which it could be used as fertilizer for lawns or crops by means of a spray irrigation system.

Even though this system is basically practical and economical, we cannot recommend it for Bronte Park. The pond requires an area of some 40 acres. This is in our opinion too large an area in proportion to the total Park site, particularly since other alternatives are available. Moreover, a stabilization pond is not compatible with nearby urban or recreational areas, because of the possibility of occasional functioning.

A third possible method is the use of a comprehensive recycling unit developed in the U.S. as a spin-off of the NASA space program. This unit is housed in a small structure, similar to an electrical substation and produces purified effluent through a physical-chemical process that regenerates its own carbon for filtration. We understand that the system is very expensive and we do not yet have sufficient information to either technically or economically justify its use.

Consequently, we recommend that the Park's liquid waste should be discharged into the municipal sewer system.

Vacuum Sewer System

A conventional sewer system operates on the "gravity" principle. Liquid wastes are transported through pipes with a slight downward inclination. They keep flowing downhill, making use of local topography. If the system comes to a minimum low point before the treatment plant has been reached, the sewage has to be pumped up to a new higher elevation, so that it can then flow down again to the plant.

The disadvantages of this method are 1) that it requires relatively large diameter pipes, for larger than is needed by the actual volume of liquids, to reduce friction factors; 2) domestic wastes must be greatly diluted with water which acts as a transport agent; 3) the pumps and related pressure pipes involve considerable capital and operating costs; and 4) the sewers must be quite deep in the ground to avoid freezing, because the liquid flows so slowly that ice build-up can easily occur, blocking the sewer.

A recent development in the collection and transport of liquid wastes through pipes by means of a vacuum method. Instead of flowing downhill by gravity, the sewage is "sucked" through by creating a negative pressure of 0.5 vacuum in the pipe by a small pump. This permits "plugs" of sewage to be propelled, at relatively high speeds, through pipes which can run uphill or downhill, depending on the local landform. At the end of the system the sewage can be discharged into a conventional trunk or into the sewage treatment plant.

The advantages of the vacuum method are 1) it requires far less water to transport wastes than conventional sewers; 2) the pipes are small-diameter and less costly P.U.C. pipes; and 3) construction requires less excavation.

The vacuum sewer system can be used with conventional house plumbing, but to optimize the savings of water, special vacuum-operated toilets have been developed which require only two quarts per flush, instead of the normal four to five gallons, thus resulting in a 90% saving of water.

We investigated the applicability of the vacuum method to the Bronte Park. Again, unfortunately, it turned out that, in this instance there is no appreciable cost advantage of a conventional sewer system.

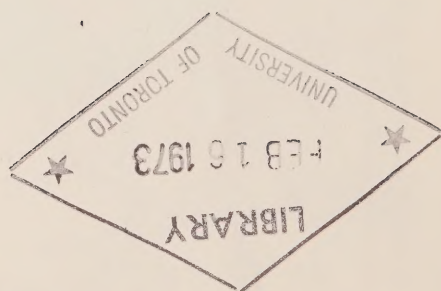
However, the use of the vacuum toilet is recommended for washroom facilities in some of the more remote corners of the Park where it would be quite expensive and difficult to bring sewers to these locations. Instead, "toilet trailers" should be used here, which contain the vacuum toilets. The two quarts per flush effluent should be held in a collection tank, installed in the trailer, which is periodically pumped out. A prototype of such a toilet trailer is about to be built.

In Ontario, several studies have been undertaken in communities which are difficult and expensive to service, because of rock and rough terrain conditions. These studies indicate that the vacuum method can achieve substantial cost savings. As a result, this system has promise of superseding the septic tank and tile bed which are proving to be a severe source of the environmental pollution problem. The Ministry of the Environment has already reviewed the capabilities of the system and has commissioned a study to be prepared which will provide an in-depth evaluation of the system as it would apply to municipalities.



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